

North Pacific Research Board

Special Request for Data Management Proposal in support of the Gulf of Alaska Integrated Ecosystem Research Program

The North Pacific Research Board (NPRB) is issuing this **special request for proposals (RFP) for Data Management for the Gulf of Alaska Integrated Ecosystem Research Program (Gulf of Alaska Project)**.

In September 2010, the NPRB launched a \$9.6 million program to study ecosystem processes that influence survival of young-of-the-year fish in the GOA based on the *Gulf of Alaska Project Implementation Plan* (see <http://gulfofalaska.nprb.org/> for details).

During several meetings leading up to the final funding decisions, Data Management, originally embedded in the Upper Trophic Level proposal, was identified as needing a dedicated group and hence, a special call for proposals. This request for proposals is specifically intended to address this gap.

PROJECT SCOPE

Proposals are requested to provide data management and communication services from April 1, 2011 to April 2015. Specific details are available in section entitled “Detailed Project Scope” later in the document.

FUNDING

The total funding amount for this RFP is \$500,000 over the 4 year duration of the project.

DEADLINE

Proposals (including all required components) must be submitted via email to Danielle Dickson (Danielle.Dickson@nprb.org) by 4 p.m. Alaska Standard Time on Wednesday, **December 14, 2011**.

GOAIERP MANAGEMENT STRUCTURE

The Data Management lead will work closely with the NPRB Gulf of Alaska Program Manager and the Gulf of Alaska Board of Investigators (GABI) to achieve the funded data management objectives. The Data Management Team and System will thus be an integral component of the overall Gulf of Alaska Project. The *Gulf of Alaska Project Program Management Plan* (see <http://gulfofalaska.nprb.org/>) provides further details on program management structure and policies. All members of the Gulf of Alaska Project Data Management Team will be required to sign the Program Management Plan.

PARTNERSHIPS

Applicants are strongly encouraged to form partnerships among federal and state agencies, universities, and other relevant institutions. While this is not required, existing data management efforts may provide additional opportunities for sharing and leveraging resources, tools, and experiences.

Proposals should clearly describe how any partnerships and leveraged funding will enhance or add value to the GOA DM effort, while at the same time distinguishing the objectives and activities of the proposed work from other ongoing work. All functionality of the Gulf of Alaska data management system must be transferable to NPRB at the end of the project in April 2015.

DETAILED PROJECT SCOPE

This RFP is intended to result in proposals to meet **all** of the following three overlapping objectives. Note that proposers are strongly encouraged to frame their proposal in a phased approach, describing immediately achievable objectives, medium-term objectives, and longer-term objectives, and providing detailed planned milestones toward achieving those objectives.

I. Data Program Communication and Coordination

Proposals must describe how they will work with the project steering committee (GABI) and NPRB staff to establish a practical web-based system for communication and coordination with principal investigators (PIs) in regards to data and metadata submission deadlines in compliance with NPRB data and metadata standards (see <http://www.nprb.org/projects/metadata.html>). The data managers will have primary responsibility for developing a practical system of data and metadata communication and coordination to meet the needs of both NPRB and the project PIs, and for maintaining the system to support on-time and efficient delivery of data and metadata.

Part of the communication and coordination role of the data manager will also include attendance at special annual PI meetings to be held in Anchorage, Juneau, or Seattle, as well as participation in the monthly GABI and PI calls. Funding for these activities must be included in the proposal budget. The data manager will also be responsible for tracking data submission and interacting with the project PIs to obtain project data for the overall data system in a timely fashion.

II. Fundamental Data and Metadata Management

Proposers must detail how they will provide fundamental data management support in concordance with the data sharing policy described in the *Gulf of Alaska Project Program Management Plan* (see <http://gulfofalaska.nprb.org/>). This must include, but is not restricted to, ingestion of data (retrospective, field, and modeling) and metadata, and development of a simple, but effective, web portal to serve as a data and metadata clearinghouse for sharing of submitted datasets amongst project PIs. This task is viewed as the primary requirement of submitted proposals.

The data are being generated by investigators working in widely varying fields of study, so the data management system will need to accommodate a number of data types and file formats. These include, but are not limited to: text and image files, spreadsheets (Excel), small databases (Access, Oracle), GIS output (ESRI shapefiles and coverages), specialized data types (.hex files from CTDs), and model output (netcdf and text files, model code in various languages). For further examples of the types of data that the proposed system will need to accommodate see the data management web site for the Bering Sea Integrated Ecosystem Research Program (http://bsierp.nprb.org/data_mgt/index.html). Specific examples of the datasets that this project expects to generate appear in Appendix 1 which may be found on the following website: <http://gulfofalaska.nprb.org/planning/proposals.html>; note this list is a subset of datasets and is not comprehensive.

The proposed data management system will need to be able to organize these data types and provide a data discovery interface for accessing all data types and formats. Proposals must include a detailed description of the background architecture of the proposed data management system, as well as a list of file types that the system will be equipped to handle. Proposals should also include a description of mechanisms planned for addressing version control of datasets. Proposals should clearly state whether the data output by the proposed system will be identical to the data input by the investigators, or if the data management team will standardize the datasets to facilitate analyses. If standardization is planned, it should be described to the extent possible.

Proposers must include creation of metadata for each dataset that meets national standards (e.g. FGDC and other standards for biological data). Proposals must detail how metadata will be authored and plans for quality assurance/quality control of data and metadata.

The proposer must provide a detailed description of a security plan that encompasses both cyber and physical security, and backup, and is consistent with industry standards. Basic security protocols must be followed for safeguarding systems, software, and data.

Proposals must include a comprehensive plan for transfer of all data, metadata, and software developed for the data management system to NPRB by the end of the data management project. Proposers should bear in mind that the data management component of the broader project needs to be prepared to see the project through to completion, recognizing the potential for no cost extensions of the other components of up to one year (April 2015), and must budget accordingly. The successful proposal will seek to develop a data management system that can be fully relocated, i.e. it can be readily moved from one hardware platform to the next without additional software development. Proposals must include plans for the transfer of all datasets to appropriate national archives such as the National Oceanographic Data Center, NBII/OBIS, etc.

III. Data Discovery Development

Proposals must outline development of a web-based system to allow query and discovery of submitted data and metadata using keywords or tags, temporal queries, and spatial queries. This system could be implemented in phases, but it needs to be fully implemented and functional within 8 months of project startup. Proposers are encouraged to describe an initial scoping process and ongoing communication to ensure development targets are practical, achievable, and meet the needs of both project PIs and NPRB staff.

FORMAT

Applicants must submit 1) a research plan **in Microsoft Word format** not to exceed 12 pages, using **Times New Roman 11 point font** and **1 inch margins** (see details below), as well as 2) a budget summary, 3) budget narrative, 4) a current and pending support form for each investigator, and 5) a two-page C.V. for each person involved in the proposal. Research plans for this special RFP must follow the structure outlined in the “Research Plan Components” section below. All other documents (except CV) **must** use the templates available on the NPRB website: <http://gulfofalaska.nprb.org/planning/proposals.html>. Proposals that fail to conform to the format described in this section will be returned without review.

RESEARCH PLAN COMPONENTS

Research Plans must be 12 pages or fewer, use Times New Roman 11 point font, and 1 inch margins. They must include the following sections:

- a) **Signed Cover Page** – Include names of applicant organization and principal/co-investigators, requested funds, and other support, and a signature of an official authorized to legally bind the submitting organization. (The cover page is not a numbered page and thus does not count towards the page limits.)
- b) **Contact Information** -- Include names, affiliations, phone, email, and physical addresses for applicant, partners, and collaborators. (This information is not a numbered page and does not count towards the page limits.)
- c) **Proposal Summary** – Provide an up to 250-word summary description of the overall proposal. Briefly describe its goals and objectives.
- d) **Technical Approach** – Provide a detailed description of the work to be performed, including goals, methods, and appropriate technical details.
- e) **Deliverables and Timelines** – Proposers must demonstrate they can start providing and maintain the requested services within reasonable timeframes after the start of the project. Proposals should include a clear table, organized by semi-annual reporting period, detailing timelines, measurable milestones (accomplishments and deliverables), and performance metrics that will be used to track the program's progress.
- f) **Management Approach and Personnel Qualifications** – Describe the management structure and responsibilities of key personnel. Describe the qualifications and past experience and successes with similar or relevant projects of key personnel. Describe how key personnel will coordinate and collaborate with the rest of the Gulf of Alaska Project and NPRB program management. The data manager who will interact most with the other Gulf of Alaska Project PIs plays a critical role in this effort, and should be a person who has broad experience with managing different types of data as well as excellent communication skills.

TIMELINE AND REVIEW

Proposals submitted by the deadline that are considered responsive to this RFP and conforming to all requirements detailed herein will be reviewed by a panel of experts following the criteria detailed in the 'Proposal Review Process' section below. The Panel will forward recommendations to the Board who will make funding decisions in late February (specific dates to be determined, see 'General Conditions' section below for further relevant details). Applicants will be notified in early **March 2012**.

PROPOSAL CONFIDENTIALITY

All proposals will be kept confidential until the final award is determined. At that time, the funded proposal (without salary information) will be made public. For unfunded proposals, if requested, proposal title, names of principal and co-investigators, total funding amount requested, duration, and the proposal summary may be released to the public.

PROPOSAL REVIEW PROCESS

Initial Screening of Applications. Upon receipt, the NPRB staff will screen applications for conformance with requirements set forth in this notice. This review will consider not only whether the proposal meets the format and structure requirements in this RFP, but also whether it is responsive to NPRB's enabling legislation and criteria, and adequately addresses the research priorities selected from this RFP. If

necessary, the NPRB staff will request an ad-hoc committee of available Science Panel members to help in the initial screening. **Proposals that are found to not comply with the requirements of the RFP will be disqualified without further processing. Applicants of disqualified proposals will be notified in writing.**

Consultation with Interested Parties. NPRB may consult with NOAA and other federal and state agencies, the North Pacific Fishery Management Council, and other entities, as appropriate, who may be affected by, or have knowledge of, a specific proposal or its subject matter.

Technical Evaluations. All proposals that pass initial screening will undergo independent, technical peer, and Science Panel review, conducted by regional, national, and international experts. Reviewers will be asked to provide comments and qualitative assessments of the technical aspects for each proposal, as indicated below (percentages indicate the weight that the subsequent review by the Panel will give to the criteria), and an overall summation. The overall summation will include five tiers: poor, fair, good, very good, and excellent.

- a. Soundness of Project Design/Conceptual Approach (60%): Is there a clear statement of project objectives, explanation of what the project will accomplish, and why it is important? Have the applicants demonstrated a clear understanding of the problem being addressed, the present state of knowledge in the field, the project's relation to other work, including their own, and the measurable benefits which will result from the proposed work? Is there sufficient information to evaluate the project technically? What are the strengths and/or weaknesses of the technical design relative to securing productive results?
- b. Timeline and Milestones (15%): Is there a clear table detailing appropriate timelines and associated measurable milestones, objectives, accomplishments, and deliverables that can be used to track and evaluate project performance through the entire award period? Is there a description of the product or result that may be used to measure project success (e.g., report, published paper, management implementation) and how the research results will be disseminated?
- c. Project Management (15%): The organization and management of the project, and the project's principal/co-investigator(s) and other personnel in terms of related experience and qualifications will be evaluated. Applicants must demonstrate how they will coordinate and collaborate with other projects and leverage their proposals with support from other sources. Applicants must seek to avoid duplication of other research efforts.
- d. Project Costs (10%): The justification and allocation of the budget in terms of the work to be performed will be evaluated. Is the project cost unreasonably high or low?

Board Review. The NPRB will review responsive proposals, consider technical evaluations, Panel recommendations, and other factors as appropriate, and decide which proposal to fund. Other factors may be considered, including, but not limited to, overlap with other ongoing programs, timeline of the research proposed, and previous performance of applicants. Evaluation of previous NPRB-funded projects will involve project management, adherence to project budgets, timelines, and reporting requirements, as well as achievement of previously-funded project objectives. Public comment will not be taken from current applicants when the Board makes final funding decisions. The exact award period will depend upon the requested duration of funding, the decision of the NPRB on funding amount, the

results of post-selection negotiations between the applicant and NPRB officials, and review by NPRB and Department of Commerce officials.

Secretary of Commerce Review. By law, all recommendations of the Board are subject to final approval by the Secretary of Commerce, who must ensure that the project recommendations are consistent with the terms of the NPRB grant award, federal law and the enabling legislation. Projects recommended for funding by the Board may be denied approval upon the review of the Secretary of Commerce. As noted in General Condition 4 (below) the applicants are responsible for obtaining all federal, state and local permits. Approval of the project by the Secretary of Commerce does not preclude the requirement to obtain such permits.

GENERAL CONDITIONS

This RFP is only a solicitation of offers and should not be construed as an expectation of award, or as any reasonable basis for detrimental reliance. NPRB is not obligated to award any specific project or any available funds. There is no guarantee sufficient funds will be available to make awards for all acceptable projects, and NPRB may choose to reject all proposals. No oral statement by any person can supersede or modify the terms of this RFP.

1. All Federal, State, private, and foreign organizations are eligible. Recipient organizations must have a DUNS number (<http://fedgov.dnb.com/webform>) and be registered in the Central Contractor Registration (CCR) system (www.ccr.gov) before any award can be made. Recipient organizations required by OMB Circular A-133 to have a single or program-specific audit will be required to submit a copy of their most recent single or program-specific audit for review before any award is made.
2. Responding proposals are firm offers and shall remain open for the NPRB to accept any time before July 1, 2012 in accordance with a standard NPRB agreement for the performance of the work proposed. A proposal is accepted only when NPRB sends the applicant written approval and has a fully executed agreement. A proposal accepted for funding does not obligate NPRB to provide additional future funding.
3. NPRB's [Subaward Compliance Policy](#), finalized in March 2009, is based on Federal law that governs award agreements and on comments received on an interim compliance policy from NOAA's Federal Law Assistance Division, the National Science Foundation, and grants managers from five major research institutions. This policy will be part of all awards made as a result of this RFP.
4. The applicant is responsible for obtaining all Federal, State, and local governmental permits and approvals for projects or activities to be funded under this announcement. This includes, as applicable, section 404 or section 10 permits issued by the Army Corps of Engineers; experimental fishing or other permits under federal fishery management plans; scientific permits under the Endangered Species Act and/or the Marine Mammal Protection Act; and assistance to the Federal government in developing analysis to meet the requirements of the National Environmental Policy Act. All experiments must be conducted in compliance with law, and only pursuant to mandatory permitting duly granted by the appropriate federal and state agencies. Requirements for special permits, for example, those required for taking marine mammals, should be clearly described and indicate whether the permit is in possession or not. Failure to comply with the above may result in the cessation or termination of the project and may lead to other action that could preclude the issuance of future awards to the applicant. As a condition of funding, all award recipients must make available upon request access to any books, documents, papers and records which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts and transcriptions. (Circ. A-110. 47(d))

5. Projects that require at-sea research using research vessels must comply with all research vessel safety standards in accordance with the guidelines for the operation of oceanographic research vessels owned, operated or chartered by members of the University-National Oceanographic Laboratory System (UNOLS), to ensure that research at sea is conducted to the highest practicable standards of safety and prudence. Those standards also apply to chartered non-institution vessels. (See: http://www.gso.uri.edu/unols/saf_stand/contents.htm.)

6. Funded participants are wholly responsible for the conduct of research, submission of required reports, and preparation of the results for publication. Participants will be required to submit semiannual progress reports and a final report to be posted on the NPRB website and in other databases. Final reports may be submitted for peer review at the discretion of the NPRB. Failure to submit timely reports or to respond to peer review comments on final reports, or to meet project objectives due to problems in program management, may result in withheld payments. Every effort should be made to submit research results for publication in an appropriate scientific journal within one year of the completion of study. The NPRB Executive Director may in his/her sole discretion grant written exceptions if requested timely. All manuscripts shall acknowledge that funds were provided by the NPRB.

7. Successful applicants will be required to provide metadata and data records to NPRB at the completion of their project in accordance with the [NPRB Metadata and Data policy](#). Submission of metadata and data records constitutes part of the final project reporting requirements. Failure to submit such records may result in withheld payments of final project costs. Among other requirements, this policy specifies the storage media and format(s), month and location for reporting, and other relevant information that may be required by the circumstances of the project.

8. Full execution for newly approved projects may be delayed if investigators involved in previous completed NPRB projects have not fulfilled all their reporting requirements, including metadata and data delivery.

9. Researchers applying to do research involving human subjects are expected to demonstrate compliance with regional protocols for researcher/community interactions or the specific human subjects screening done by most academic institutions and agencies. The purpose is to ensure that privacy is protected, data are collected in a suitable manner, data are maintained in a secure environment, and results of any study are made available to participants if they indicate their interest.

10. In accordance with federal statutes and regulations, no person on grounds of race, color, age, sex, national origin, religion, marital status, pregnancy, parenthood, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under this program.

Point of Contact

For more information or questions regarding this RFP please contact

Danielle Dickson

Program Manager

North Pacific Research Board

1007 W. Third Avenue Suite 100

Anchorage, AK 99501

Danielle.Dickson@nprb.org 907-644-6716